

# Notice of Allowability

Application No.

09/685,197

Examiner

Shuwang Liu

Applicant(s)

MILLER ET AL.

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on 03/26/05.
2. ☒ The allowed claim(s) is/are 1-3,5-15,17-35,37-42,44-55,57-67 and 69-84.
3. ☒ The drawings filed on 10 October 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date 04/07/05.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

## DETAILED ACTION

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Brain C. Altmiller on April 06, 2005.

The application has been amended as follows:

- (1) In claim 1, line 10, insert - -UWB- - after "incoming";
- (2) In claim 3, line 2, change "modes" to - -the acquisition mode and the tracking mode- -;
- (3) Cancel claim 4;
- (4) In claim 5, line 1, change "4" to - -1- -, delete "reception", and insert - -level- - after "performance";
- (5) In claim 6, line 3, change "track" to - -tracking- -;
- (6) In claim 8, line 10, insert - -UWB- - after "incoming";
- (7) In claim 14, line 6, insert - -UWB- - after "incoming";
- (8) In claim 18, line 3, insert - -UWB- - after "incoming";
- (9) In claim 19, line 3, insert - -UWB- - after "incoming";
- (10) In claim 21, line 3, insert - -UWB- - after "incoming";

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- (11) In claim 22, line 3, insert - -UWB- - after "incoming";
- (12) In claim 44, line 3, insert - -UWB- - after "incoming";
- (13) In claim 49, line 4, change "modes" to - -the acquisition mode and the tracking mode- -;
- (14) In claim 55, line 2, insert - -between the acquisition mode and the tracking mode- - after "transitioning";
- (15) In claim 59, line 3, change "track" to - -tracking- -;
- (16) In claim 70, line 3, insert - -UWB- - after "incoming";
- (17) In claim 71, line 3, insert - -UWB- - after "incoming";
- (18) In claim 73, line 3, insert - -UWB- - after "incoming"; and
- (19) In claim 74, line 3, insert - -UWB- - after "incoming";

***Allowable Subject Matter***

- 2. Claims 1-3, 5-15, 17-35, 37-42, 44-55, 57-67, and 69-84 are allowed.
- 3. The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to teach a method for switching between an acquisition mode and a tracking mode in a UWB receiver, comprising the steps of: monitoring an amplitude of an incoming UWB signal; determining a state parameter from the amplitude based on a noise variance of the incoming UWB signal determined during AGC initialization; and controlling a transition from the acquisition mode to the tracking mode when the state parameter is set to a predetermined value. Furthermore, the prior

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art fails to teach the step of setting a vector length of samples of the incoming UWB signal to a predetermined number so a transition between the acquisition mode and the tracking mode will occur while the UWB receiver is exhibiting a predetermined reception performance or the step of setting a number of samples of the incoming UWB signal to a predetermined number so as to controllably establish a predetermined performance level with regard to when to control a transition between the acquisition mode and the tracking mode.

### ***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shuwang Liu whose telephone number is 571 272-3036. The examiner can normally be reached on M-F, 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571 272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Shuwang Liu  
Primary Examiner  
Art Unit 2634

April 7, 2005